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REHEARING JAN 2 2 2003

BEFORE THE ARIZONA CORPORATION COMMISSION

WILLIAM MUNDELL

Chairman

JIM IRVIN

Commissioner

MARC SPITZER

Commissioner

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Arizona Corporation Commission

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IN THE MATTER OF THE INVESTIGATION )  
 INTO QWEST CORPORATION'S )  
 COMPLIANCE WITH CERTAIN WHOLESALE )  
 PRICING REQUIREMENTS FOR UNBUNDLED )  
 NETWORK ELEMENTS AND RESALE )  
 DISCOUNTS )

DOCKET NO. T-00000A-00-0194

AT&T APPLICATION FOR  
 REHEARING OF PHASE IIA  
 OPINION AND ORDER

AT&T Communications of the Mountain States, Inc., and TCG Phoenix (collectively "AT&T") respectfully submit this Application for Rehearing of the Commission's Phase IIA Opinion and Order, Decision No. 65461 (Docketed December 12, 2002) ("Order").

The Order continues the Commission's efforts to establish reasonable unbundled network element rates consistent with total element long-run incremental cost ("TELRIC") principles. While not agreeing with all of the determinations made in the Order, AT&T requests only that the Commission reexamine one aspect of the Order. Specifically, the Commission should reconsider its decision to modify the Phase IIA Recommended Opinion and Order ("Phase IIA RO&O") and should not adopt Qwest's proposed 80% fill factor, but should accept the 94% factor that the Administrative Law Judges ("ALJs") recommended.

### DISCUSSION

The Commission modified the Phase IIA RO&O only to revise the switching fill factor, *i.e.*, the amount of switch capacity assumed to be used when estimating the switching costs to be recovered from current ratepayers. Qwest proposed an 80% fill factor (which assumes that 20%

of the switch capacity is not being used) based on its embedded network. AT&T proposed a 94% fill factor based on testimony and the FCC conclusion that an efficient provider would not leave more than 6% of its switching capacity unused. The ALJs agreed with AT&T, finding, “The FCC’s adoption of the HAI model’s 94% fill factor properly recognizes that current customers should not be forced to subsidize potential future growth.” Phase IIA RO&O at 8-9. The Commission, however, relied on its previous conclusions on fill factors to reject the ALJs’ recommendation and to adopt Qwest’s proposal:

In this instance, as in our findings on fill factors for High Capacity Loops in our *Phase II Opinion and Order*, “the fill factors proposed by the CLECs represent even more than the ‘ideal configuration neither deployed by the ILEC nor to be used by the competitor.’” We agree with Qwest that some degree of space capacity allows an efficient carrier to meet short term growth from additional customers, and as in our *Phase II Opinion and Order* where we adopted the HAI model’s average fill factor of 48.8% for distribution plant, we believe that the FCC’s *Inputs Order* requires us to ‘recognize fills that are sized to meet current demand, including an amount of capacity to meet additional demand.’” In both our *First Cost Docket Order* and our *Phase II Opinion and Order* we have recognized that Arizona is a ‘high growth market’ and that growth requires an efficient allocation of spare capacity to allow efficient planning and to adapt to CLEC growth in the market. We therefore adopt Qwest’s proposed fill factors for purposes of this proceeding.

Order at 8-9 (footnotes omitted). The Commission’s prior orders, the FCC’s *Inputs Order*, and the record do not support this conclusion.

Understanding the nature of the practical limit on switch capacity is vital to setting the appropriate value of the switch fill factor in the HAI Model., which pertains to subscriber lines served by a given switch in the Model. The Order’s observation that a switch “is essentially a computer,” Order at 7, oversimplifies switch architecture and obscures the fact that a switch consists of three primary functional divisions, each with its own independent capacity limit.<sup>1</sup>

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<sup>1</sup> Switches are sometimes described in high-level terms as specialized “computers” or “processors,” and such terminology sometimes adequately serves a correspondingly high-level

Any forward-looking circuit switch such as a Lucent 5ESS or Nortel DMS-100 consists of a control complex (which consists of one or more computer-like “processors”), a switch fabric (which makes the physical connection from line to line and line to trunk and, although it consists of digital circuitry, is not a “computer”), and port interfaces terminating line and trunk circuits. The capacity of the control complex is normally expressed in terms of busy-hour call attempts, because the control structure is most heavily involved in calls during the call setup process. The capacity of the switch fabric is expressed in traffic units (usually CCS) or the maximum number of simultaneous connections it can support. The port capacity is usually stated as the maximum number of lines or trunks that can be physically connected to the system.<sup>2</sup>

Forward-looking switches are not limited by either control (processor) or switch fabric capacity, as recognized by a Qwest witness in the Arizona Cost of Access proceeding:

It is not unreasonable to model switching costs now as depending entirely on the number of line-side ports and the number of trunk-side ports. Switching costs in such a model can be reasonably recovered entirely as fixed monthly charges.<sup>3</sup>

Line capacity is very easily added to end office switches by installing new line interface circuit boards, each of which can typically terminate from as few as four up to sixteen or more subscriber lines. The increment of line growth is thus quite small and can be added as required.

As the Commission observes, “some degree of space [*sic*] capacity allows an efficient carrier to meet short term growth from additional customers,” but the amount of spare capacity

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discussion of the nature of a switch. An informed discussion of the appropriate value of the switch fill factor input, however, requires a more precise view of switching system functions.

<sup>2</sup> The HAI Model Inputs Portfolio (Sections 4.1.1, 4.1.2 & 4.1.3 at pages 83-84) contains a set of capacity limits corresponding to each of the three functional divisions in a forward-looking circuit switch.

<sup>3</sup> *In re Investigation of the Cost of Telecommunications Access*, Docket No. T-00000D-00-0672, Direct Testimony of Harry M. Shooshan III on Behalf of Qwest at 25 (July 2002).

that an efficient carrier would maintain is a function of the time and expense required to increase capacity. A switch is located entirely within a central office, and is modular, *i.e.*, can be augmented by adding small, discrete components without redesigning or reconstructing the entire switch. Accordingly, switch capacity can be increased in a very short period (weeks or a few months) in response to future additional demand. Augmenting loop distribution facilities, in sharp contrast, is a time-consuming and expensive proposition, often requiring extensive construction activities, both in the type of work required and the geographical locations in which that work must be performed, over a period of up to several years in some cases.<sup>4</sup> The HAI model's 94% fill for switching thus is fully consistent with the TELRIC principles from which the model assumes a 48.8% average fill factor for distribution plant – a forward-looking, efficient company will maintain excess capacity only to the extent necessary to timely meet additional demand.

An 80% fill factor for switching ignores these principles. Even assuming (without conceding the accuracy of) Qwest's 4.8984% forecasted growth rate in Arizona switched analog and digital lines, a switch configured and installed today will be able to serve new customers and continue to have spare capacity for well over *four years*. When switch capacity can be increased in less than six months, it simply is not reasonable to maintain sufficient spare capacity to serve additional customers for a period of time that is *10 or more times longer*. Under those circumstances, current customers are paying for the switching needed to serve customers four years in the future – a result that enables Qwest to leverage its existing *de facto* local exchange monopoly in Arizona well into the future and is a clear violation of the FCC's TELRIC

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<sup>4</sup> See, e.g., HAI Model Inputs Portfolio; Testimony of Richard Buckley on Behalf of Qwest at 30 (March 15, 2001) (supporting a high fill factor for electronic equipment that “can be more readily reinforced than cables” and other outside plant); *id.* at 32 (“Distribution [plant] is designed to avoid reinforcement and is more geographically or customer specific”).

principles.

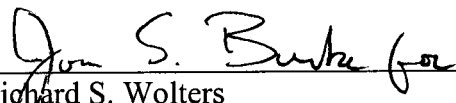
The FCC recognized this reality in adopting the 94% fill factor that AT&T proposed and the ALJs recommended. The FCC specifically rejected ILEC proposals that costs should be based on the investment required to serve future, as well as current, demand.<sup>5</sup> The FCC's recognition (on which the Commission relies) that current customer demand includes some amount of "additional demand" when establishing fill factors means nothing more than that fill factors should not be set at 100%. The FCC itself concluded that a 94% fill factor properly captured the "additional demand" needed for switching investment.<sup>6</sup> The Commission cannot reasonably base its determinations on selected quotations from the FCC's Inputs Order while ignoring the FCC's ultimate conclusion.

### CONCLUSION

For the foregoing reasons, the Commission should reconsider its decision to adopt Qwest's 80% fill factor and should adopt the ALJs' recommendation of a 94% fill factor.

Dated this 2<sup>nd</sup> day of January 2003.

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<sup>5</sup> *Inputs Order* paragraphs 319 & 330-32.

<sup>6</sup> *Id.*

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### **CERTIFICATE OF SERVICE**

I hereby certify that the original and 10 copies of AT&T of the Mountain States, Inc. Final Proposed Price List, regarding Docket No. T-00000A-00-0194, were hand delivered this 2<sup>nd</sup> day of January, 2003, to:

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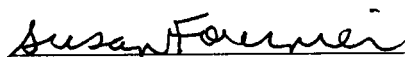
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